

Work Order ID 94132

94132

Page 1

November-30-12 9:26:01 AM

Item ID: D412-702-303

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Harness Assembly

Start Date: 11/27/12 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/28/12 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MCS Date: 12-12-03 Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9511	A								
100		0.00							
100									
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg ICA D412-702 p.49								
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	Memo	0.00							
Quality Control									
120		0.00							
120									
Packaging	Memo	0.00							
Packaging	Identify with P/N & CHG# and pack for shipping as per PPP D412-702-303								
	CHG001								
	Location:								
	PPP Rev: <u>ST263</u>								

1X

[Signature] 13/01/12

DAS
15
0-83

131-4

1

1X

[Signature] 13-01-10

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY			
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Work Order ID 94132***94132***

Page 2

November-30-12 9:26:01 AM

Item ID: D412-702-303

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Harness Assembly

Start Date: 11/27/12 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/28/12 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

ME
13-01-07

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

November-30-12 9:26:00 AM

Page 1

Work Order ID: 94132
Parent Item: D412-702-303
Parent Item Name: Harness Assembly

Start Date: 11/27/12
Start Qty: 1.00

Required Date: 12/28/12
Required Qty: 1.00

Comments: IPP Rev:A new issue DD 10.04.30 verified:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3573-8 Adapter		Manufactured	No			100	Each	6.0000	1	1		12/30/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		6							
				81656		6							
D4088-041 Shoulder Harness		Manufactured	No			100	Each	44.0000	1	1		12/30/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST264		25							
				87300		17							
				90248		8							
				st268		19							
				91437		19							
MS24693-S272 Screw		Purchased	No			100	Each	97.0000	4	4		12/30/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		85							
				118352		85							
				ST304		12							
				116391		11							
				116737		1							
AN960JD10LL Washer		Purchased	No			100	Each	3,296.0000	4	4		12/30/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		136							
				19085		136							
				ST337A		3160							
				19600		3160							

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

Picklist Print

November-30-12 9:26:01 AM

Page 2

Work Order ID: 94132

Parent Item: D412-702-303

Parent Item Name: Harness Assembly

Start Date: 11/27/12

Required Date: 12/28/12

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

1,411.0000

4

4

Nut

Location

Loc Qty

Loc Code

ST300

225

117885

32

119017

55

119075

138

ST314

748

122141

197

123265

551

ST315

438

122452

438

Handwritten signature and date: 12/28/12

November-30-12 9:26:01 AM

Shop Packet Print

Page 2

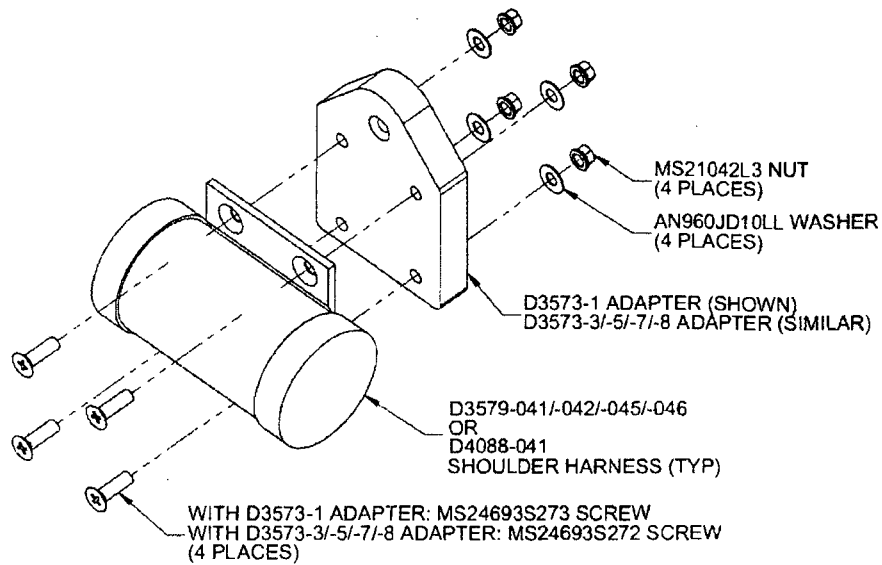
NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

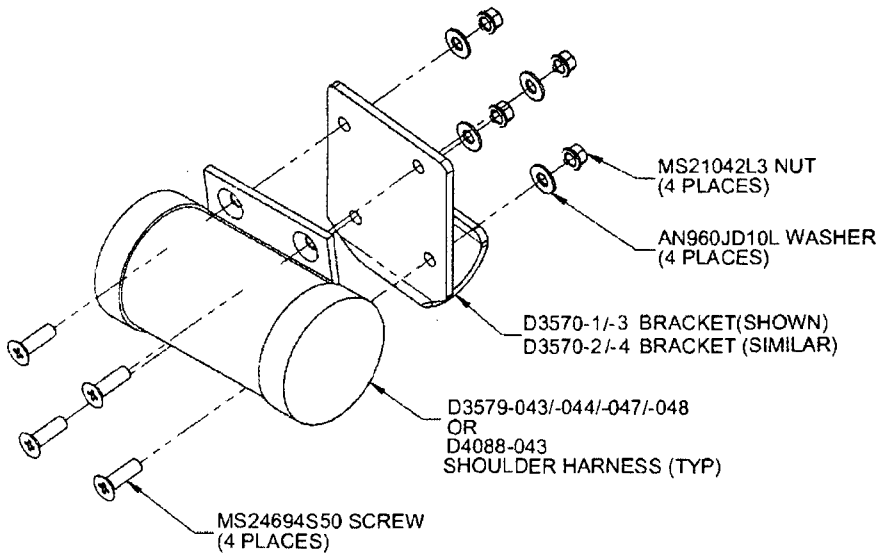
DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
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Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		



DETAIL 'K' D412-702-101A/-103A/-105A/-107A/-109A/-115A/-117A AND
D412-702-101B/-103B/-105B/-107B/-109B/-115B/-117B OR -301/-303/-305/-
307/-309/-315/-317 HARNESS ASSEMBLIES



DETAIL 'L' D412-702-111A/-111B/-113A/-113B OR -311/-313/-321/-323 HARNESS ASSEMBLIES

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25-00-00

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-702 REV. E AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-702 REV. 3

REF TCCA STC SH04-7
REF FAA STC SR01997NY
REF EASA STC EASA.I.M.R.S.00710

This service instruction adds several kits equipped with improved inertia reels:

The Dart **D412-702-341** 13-Man Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for all 13 passenger seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-041B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-343** 5-Man Forward Facing Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 5 forward facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-043B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-345** 4-Man Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 4 aft facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-045B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-347** 4-Man Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 4 side facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-047B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-349** 1-Man Shoulder Harness Kit provides a 3-point harness with an inertia reel and joined lap and shoulder belts for the center forward facing seating position in the aircraft cabin. The kit also contains hardpoints for securing the harness. The harness for this kit meets the requirements of TSO-C114 and replaces the existing lap belts. This kit should be installed similar to the D412-702-049B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-351** 1-man 3-point shoulder harness kits are available for the outboard seats of the 5-man forward facing bench in Bell 205/212/214/412 model aircraft. The kit can be installed LH or RH. These kits should be installed similar to the D412-702-051B/052B kits, as detailed in Table 1 of this service instruction.

The Dart **D214-702-337** 5-Man Aft Facing Shoulder Harness Kit provides 3-point harnesses with inertial reels and joined lap and shoulder belts for the 5-man aft facing seat installed in the Bell 214B/B1 model aircraft. This kit should be installed similar to the D214-702-037B kit, as detailed in Table 1 of this service instruction.

The Dart **D205-702-353** 4-Man Aft Facing Shoulder Harness Kit provides 3-point harnesses with inertial reels and joined lap and shoulder harnesses for the 4-man aft facing seat installed in the UH-1 model aircraft. This kit should be installed similar to the D205-702-053B kit, as detailed in Table 1 of this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	CP	10.03.18
REV.	DESCRIPTION	BY	DATE
DESIGN	99	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	99		
CHECKED	1	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 1 OF 6
APPROVED	140	TITLE	SCALE
DE APPR.	14	NEW SHOULDER HARNESS KITS	NTS
DATE	10.03.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

UNCONTROLLED
12-12-03
94132M5
WOLFE
WITH
STRICTLY
FOR

INSTALLATION

The Dart D412-702-3XX kits should be installed similar to the kits in Installation Instructions IIN-D412-702 Rev. E or Dart Service Instruction (DSI) listed below:

TABLE 1

Part Number	Description	Install similar to:
D412-702-341	Shoulder Harness Kit	D412-702-041B (IIN-D412-702, DSI 9408)
D412-702-343	Shoulder Harness Kit	D412-702-043B (IIN-D412-702, DSI 9453 [214], DSI 9408)
D412-702-345	Shoulder Harness Kit	D412-702-045B (IIN-D412-702, DSI 9469)
D412-702-347	Shoulder Harness Kit	D412-702-047B (IIN-D412-702, DSI 9408)
D412-702-349	Shoulder Harness Kit	D412-702-049B (IIN-D412-702, DSI 9408)
D412-702-351	Shoulder Harness Kit	D412-702-051B (LH) (DSI 9397, DSI 9408) D412-702-052B (RH) (DSI 9397, DSI 9408)
D214-702-337	Shoulder Harness Kit	D214-702-037B (DSI 9454)
D205-702-353	Shoulder Harness Kit	D205-702-053B (DSI 9460)
D412-702-301	Harness Assembly	D412-702-101B (IIN-D412-702)
D412-702-303	Harness Assembly	D412-702-103B (IIN-D412-702)
D412-702-305	Harness Assembly	D412-702-105B (IIN-D412-702)
D412-702-307	Harness Assembly	D412-702-107B (IIN-D412-702)
D412-702-309	Harness Assembly	D412-702-109B (IIN-D412-702)
D412-702-311	Harness Assembly	D412-702-111B (IIN-D412-702)
D412-702-313	Harness Assembly	D412-702-113B (IIN-D412-702)
D412-702-315	Harness Assembly	D412-702-115B (IIN-D412-702)
D412-702-317	Harness Assembly	D412-702-117B (IIN-D412-702)
D412-702-319	Harness Assembly	D412-702-119B (DSI 9454)
D412-702-321	Harness Assembly	D412-702-121B (DSI 9454, DSI 9469)
D412-702-323	Harness Assembly	D412-702-123B (DSI 9454, DSI 9469)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY:

D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	92	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	92	
CHECKED		DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9511 SHEET 2 OF 6
APPROVED	10	TITLE SCALE
DE APPR.	#	NEW SHOULDER HARNESS KITS NTS
DATE	10.03.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

04132

PARTS LIST

TABLE 2

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
X						D412-702-341	Dart 13-Man 3-Point Shoulder Harness Kit
	X					D412-702-343	Dart 5-Man 3-Point Forward Facing Shoulder Harness Kit
		X				D412-702-345	Dart 4-Man 3-Point Aft Facing Shoulder Harness Kit
			X			D412-702-347	Dart 4-Man 3-Point Side Facing Shoulder Harness Kit
				X		D412-702-349	Dart 1-Man 3-Point Forward Shoulder Harness Kit
					X	D412-702-351	Dart 1-Man 3-Point Shoulder Harness Kit
1	1		1	1		D412-702-059	GROMMET KIT
9	5		4	1	1	D3761-1-041	HOOK AND LOOP STRIP (DSI 9408)
2	1		1			D412-702-301	HARNESS ASSEMBLY (NEW)
1*	1*		1*			D3573-7	ADAPTER
1*	1*		1*			D4088-041	SHOULDER HARNESS (NEW)
4*	4*		4*			MS24693S272	SCREW
4*	4*		4*			AN960JD10LL	WASHER
4*	4*		4*			MS21042L3	NUT
2	1		1			D412-702-303	HARNESS ASSEMBLY (NEW)
1*	1*		1*			D3573-8	ADAPTER
1*	1*		1*			D4088-041	SHOULDER HARNESS (NEW)
4*	4*		4*			MS24693S272	SCREW
4*	4*		4*			AN960JD10LL	WASHER
4*	4*		4*			MS21042L3	NUT
1	1			1		D412-702-305	HARNESS ASSEMBLY (NEW)
1*	1*			1*		D3573-1	ADAPTER
1*	1*			1*		D4088-041	SHOULDER HARNESS (NEW)
4*	4*			4*		MS24693S273	SCREW
4*	4*			4*		AN960JD10LL	WASHER
4*	4*			4*		MS21042L3	NUT
1	1				1	D412-702-307	HARNESS ASSEMBLY (NEW)
1*	1*				1*	D3573-3	ADAPTER
1*	1*				1*	D4088-041	SHOULDER HARNESS (NEW)
4*	4*				4*	MS24693S272	SCREW
4*	4*				4*	AN960JD10LL	WASHER
4*	4*				4*	MS21042L3	NUT
1	1					D412-702-309	HARNESS ASSEMBLY (NEW)
1*	1*					D3573-3	ADAPTER
1*	1*					D4088-041	SHOULDER HARNESS (NEW)
4*	4*					MS24693S272	SCREW
4*	4*					AN960JD10LL	WASHER
4*	4*					MS21042L3	NUT

* denotes that part is included in assembly above



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CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	92	DART AEROSPACE LTD	
DRAWN	92	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		NEW SHOULDER HARNESS KITS NTS	
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QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
1		1				D412-702-311	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-1	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-313	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-2	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1			1			D412-702-315	HARNESS ASSEMBLY (NEW)
1*			1*			D3573-5	ADAPTER
1*			1*			D4088-041	SHOULDER HARNESS (NEW)
4*			4*			MS24693S272	SCREW
4*			4*			AN960JD10LL	WASHER
4*			4*			MS21042L3	NUT
1			1			D412-702-317	HARNESS ASSEMBLY (NEW)
1*			1*			D3573-5	ADAPTER
1*			1*			D4088-041	SHOULDER HARNESS (NEW)
4*			4*			MS24693S272	SCREW
4*			4*			AN960JD10LL	WASHER
4*			4*			MS21042L3	NUT
1		1				D412-702-321	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-3	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	BOLT
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-323	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-4	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	BOLT
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT

* denotes that part is included in assembly above



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CANADA
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AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	99	DART AEROSPACE LTD	
DRAWN	99	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 4 OF 6
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...continued from previous page

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
2	2					D3542-1	BRACKET
7	3		4	1		D3571-1	GUIDE
2	2					D3571-3	GUIDE
2		2				D3572-041	GUIDE ASSEMBLY
12	6		6	2		D3578-041	DOUBLER
2	2					D3610-041	BRACKET
2	2					D3618-1	CAP
4	4					AN4-10A	BOLT
2		2				AN4-16A	BOLT
4		4				AN4-25A	BOLT
4		4				AN4-27A	BOLT (DSI 9469)
2	2					AN4-44A	BOLT
2	2					MS24693S274	SCREW
3	3			1		MS24694S56	SCREW
10	2		8			MS24694S58	SCREW
1	1			1		MS24694S60	SCREW
26	6	20				AN960JD416	WASHER
4	4					AN960JD416L	WASHER
12	6	6				MS21042L4	NUT
24	12		12	4		CR3212-4-4	RIVET

CANADA
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AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

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ISSUE NO.: 3

DESIGN	92	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	92	
CHECKED	1	DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9511 SHEET 5 OF 6
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TABLE 3

QTY -337	QTY -353	Part Number	Description
X		D214-702-337	Dart 5-Man 3 Point Aft Facing Shoulder Harness Kit, for 214 Aircraft
	X	D205-702-353	Dart 4-Man 3 Point Aft Facing Shoulder Harness Kit, for UH-1 Aircraft
1	2	D412-702-311	HARNESS ASSEMBLY (NEW) --> SEE TABLE 2
1	2	D412-702-313	HARNESS ASSEMBLY (NEW) --> SEE TABLE 2
1		D412-702-321	HARNESS ASSEMBLY (NEW) --> SEE TABLE 2
1		D412-702-323	HARNESS ASSEMBLY (NEW) --> SEE TABLE 2
1		D412-702-319	HARNESS ASSEMBLY (NEW)
1*		D3925-041	BRACKET
1*		D4088-043	SHOULDER HARNESS ASSEMBLY (NEW)
4*		MS24694S50	BOLT
4*		AN960JD10L	WASHER
4*		MS21042L3	NUT
	1	D3572-043	GUIDE ASSY
	1	D3572-044	GUIDE ASSY
1		D3920-041	SEATBELT GUIDE ASSEMBLY
2		D3920-5	SEATBELT GUIDE
1	6	AN4-16A	BOLT
1		AN4-21A	BOLT
7		AN4-25A	BOLT
18	12	AN960JD416	WASHER
9	6	MS21042L4	NUT



* denotes that part is included in assembly above

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AIRCRAFT CERTIFICATION
BRANCH
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DESIGN	92	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	92	
CHECKED	1	DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9511 SHEET 6 OF 6
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